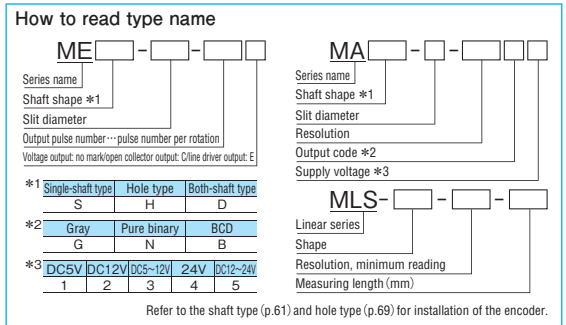


MICRO ENCODER

-Description-

MTL rotary encoders are all based on space-saving design and available in many types from ultra-small types to high-resolution products.






















▼Description

Series name	Appearance	Type name	Outside dimensions	Resolution	Features	Page
Incremental ME series		MES-3P MES-3PST	φ5×9.6 □6×8.6	64P/R,100P/R 1024P/R	<ul style="list-style-type: none"> ●The smallest model of ultra-small series. ●A, B, and Z phase output. ●Open collector output. 	7 8
		MES-6-□PC MES-6-□PST□C	φ7.5×10.5 φ7.5×10.5	100 500	<ul style="list-style-type: none"> ●A, B, and Z phase output. ●Open collector output. 	9 10
		ME□-9-□P□	φ13×20	32 1,024 (16,000)	<ul style="list-style-type: none"> ●Compactness, light weight. ●A, B, and Z phase output. ●Hollow-shaft type convenient for small motors. Option ●With built-in PST ×2, ×4, ×8, ×16 multiplication circuit 	11 12
		ME□-12-□P□	φ20×20(S)	60 2,048 (32,000)	<ul style="list-style-type: none"> ●Compactness, light weight. ●A, B, and Z phase output. ●Availability of hollow-shaft type convenient for small motors. Option ●With built-in PST ×2, ×4, ×8, ×16 multiplication circuit 	13 14
	NEW 	MEH-14-2250 PSTN□E	φ21×16.5	2,250 (72,000)	<ul style="list-style-type: none"> ● Compact high-resolution incremental encoder ● Hollow shaft with 2.6 mm inner diameter. ● PSTN ×2, ×4, ×5, ×8, ×10, ×16, ×20, ×32 	15 16
		ME□-17-□P	φ20×15	100 500	<ul style="list-style-type: none"> ●Compactness, light weight. ●A, B, and Z phase output. ●Availability of 3 types of shaft shape, single-shaft types φ2 and φ4 and hollow-shaft type. 	17 18
	NEW 	MEH-19-3375 PSTN□E	φ30×16.5	3,375 (108,000)	<ul style="list-style-type: none"> ● Compact high-resolution incremental encoder ● Hollow shaft with 5 mm inner diameter. ● PSTN ×2, ×4, ×5, ×8, ×10, ×16, ×20, ×32 	19 20
		ME□-20-□P□	φ32×22	40 7,200 (144,000)	<ul style="list-style-type: none"> ●Thin and compact popular type. ●Availability of shaft shape to meet various fitting systems. Option ●With built-in PST ×2, ×4, ×5, ×8, ×10, ×16 ×20 multiplication circuit 	21 22
	NEW 	MEH-28-6750 PSTN□E	φ40×16.5	6,750 (216,000)	<ul style="list-style-type: none"> ● Compact high-resolution incremental encoder ● Hollow shaft with 8 mm inner diameter. ● PSTN ×2, ×4, ×5, ×8, ×10, ×16, ×20, ×32 	23 24
		ME□-30-□P□	φ44×22	40 10,800 (216,000)	<ul style="list-style-type: none"> ●Thin and compact popular type. ●Availability of shaft shape to meet various fitting systems. Option ●With built-in PST ×2, ×4, ×5, ×8, ×10, ×16 ×20 multiplication circuit 	25 26
		MEH-30T-□PST□E	φ44×18	20,000 200,000	<ul style="list-style-type: none"> ●Thickness: 18mm ●Diameter hollow shaft: φ10mm ●Output pulse: 200,000P/R ●Maximum response frequency: 1 MHz 	27 28
		MES-40-□P□	φ56×36.8	100 15,000 (300,000)	<ul style="list-style-type: none"> ●Robust, general-purpose type. ●Hostile-environment and drip-proof specifications are also available. ●Load-resistance. Option ●With built-in PST ×2, ×4, ×5, ×8, ×10, ×16 ×20 multiplication circuit 	29 30
		MES-45-□-□□ (Old model: RK1•RKW1)	φ55×50	360 9,000	<ul style="list-style-type: none"> ●Strong type ●Environment resistance 	31 32
		ME□-50-□P□	φ65×30	500 10,800 (216,000)	<ul style="list-style-type: none"> ●Thin and compact popular type. ●Availability of shaft shape to meet various fitting methods. Option ●With built-in PST ×2, ×4, ×5, ×8, ×10, ×16 ×20 multiplication circuit 	33 34
		MEH-60-□P□	φ74×30	100 21,600 (432,000)	<ul style="list-style-type: none"> ●High resolution. ●Easy-to-fit thin type. ●Large hollow shaft of 30 in inside diameter. Option ●With built-in PST ×2, ×4, ×5, ×8, ×10, ×16 ×20 multiplication circuit 	35 36
		MEH-85-□P□	φ100×26	150 21,600 (432,000)	<ul style="list-style-type: none"> ●High resolution. ●Easy-to-fit thin type. ●Large hollow shaft of 36 in inside diameter. Option ●With built-in PST ×2, ×4, ×5, ×8, ×10, ×16 ×20 multiplication circuit 	37 38
		MEH-130-□P□	φ150×50	360 36,000 (720,000)	<ul style="list-style-type: none"> ●High resolution. ●Large hollow shafts of 60 and 75 in inside diameter. Option ●With built-in PST ×2, ×4, ×5, ×8, ×10, ×16 ×20 multiplication circuit 	39 40
	MEH-180-□P□	φ200×71	36,000 72,000 (1440,000)	<ul style="list-style-type: none"> ●High resolution. ●Large hollow shaft of 90 in inside diameter. Option ●With built-in PST ×2, ×4, ×5, ×8, ×10, ×16 ×20 multiplication circuit 	41 42	
Incremental MGH series		MGH-20-□-E MGH-30-□-E	φ32×22.5 φ44×21	40~1,200 40~2,000	<ul style="list-style-type: none"> ●Light weight, compactness. ●Modular type best suited for small motors. ●With CS signal 	43 44
	Incremental MG series		MG-20-□□ MG-30-□□	Diameter rotating slit φ22 Diameter rotating slit φ31.6	100~1,200 100~2,000	<ul style="list-style-type: none"> ●Kit where the rotating slit and sensor unit are separate pieces. ●Compact and lightweight. Best suited for space-saving designs. ●A, B, and Z phase output.

Series name	Type name	Page
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	Special spring flange	68

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- For the details of products, see the page of each product.
- You are requested to consult sales personnel of our company because the specifications, etc. may be changed for improvement without prior notice.

Series name	Appearance	Type name	Outside dimensions	Resolution	Features	Page
Absolute MMS series		MMS-10-□□□G1	φ13×17.2	256 } 1,024	<ul style="list-style-type: none"> ●Outer diameter: φ13mm ●Height: 15.5mm ●Resolution: 1024 divisions ●SSI interface 	47
Absolute MA series		MAS-10-256G	φ13×15.5	256	<ul style="list-style-type: none"> ●Ultra compact 8-bit absolute type ●Gray code output without reading error 	48
	NEW 	MAS-14-□□□N1	φ21×16.5	32,768 (16bit) 65,536 (16bit) 131,072 (17bit) 262,144 (18bit)	<ul style="list-style-type: none"> ●18bit small high-resolution absolute encoder ●SSI interface 	49
		MA□-17-□□□1	φ20×21	256 } 1,024	<ul style="list-style-type: none"> ●Small absolute type. ●Availability of single-shaft (4 in diameter) and hollow shaft (2 in inside diameter). ●The output codes are gray code, pure binary code, and BCD code. 	50
	NEW 	MAS-18-□□□N1	φ25×15	32,768 (15bit) 65,536 (16bit) 131,072 (17bit) 262,144 (18bit)	<ul style="list-style-type: none"> ●17bit small high-resolution absolute encoder ●SSI interface 	51
	NEW 	MAH-19-□□□N1	φ30×16.5	65,536 (16bit) 131,072 (17bit) 262,144 (18bit) 524,288 (19bit)	<ul style="list-style-type: none"> ●19bit small high-resolution absolute encoder ●Hollow shaft type (5 in inside diameter) ●SSI interface 	52
		MA□-20-□-□□□1	φ32×24	256 } 4,096	<ul style="list-style-type: none"> ●Thin and compact 12-bit absolute encoder ●Availability of shaft shape to meet various fitting systems. ●The output codes are gray code, pure binary code, and BCD code. 	53
	NEW 	MAH-28-□□□N1	φ40×16.5	262,144 (18bit) 524,288 (19bit) 1,048,576 (20bit)	<ul style="list-style-type: none"> ●20bit small high-resolution absolute encoder ●Hollow shaft type (8 in inside diameter) ●SSI interface 	54
		MA□-36-□□□□	φ46×30	256 } 16,384	<ul style="list-style-type: none"> ●Compact absolute encoder. ●Robust, hostile-environment type. ●Availability of shaft shape to meet various fitting systems. 	55
		MA□-42-□□□□	φ52×30	256 } 4,096	<ul style="list-style-type: none"> ●12-bit absolute encoder ●The output codes are gray code, pure binary code, and BCD code. 	56
Multiple-rotation absolute encoder MXS series		MXS-36-□-□□□C6□□	φ46×55	128~1,024	<ul style="list-style-type: none"> ●Multiple-rotation absolute encoder 	57
		MXS-42-□-□□□□□□-□	φ65×63.5	128~4,096		58
Wire-type linear encoder MLS series		MLS-12-□-□	<ul style="list-style-type: none"> ●Smallest in the series: Outside dimensions 23 x 24 x 25 (H) ●Stroke: 250 mm ●Resolution: Selection from among 0.1mm, 0.04mm ●Lightweight: 60 g 		59	
		MLS-30-□-□	<ul style="list-style-type: none"> ●Wire draw-out-type linear encoder. Detection of linear position to correspond to the draw-out amount of the wire. ●Minimum reading 0.02mm, 0.2mm ±0.005mm, 0.05mm is possible with 4-multiplying circuits. ●Measuring range: 500mm, 1000mm. ●Also available is a set type with indicator. 		60	
		MLS-50-□-□	<ul style="list-style-type: none"> ●Wire draw-out type linear encoder. Detection of linear position corresponding to the draw-out amount of the wire. ●Minimum reading 0.4mm ±0.1mm is possible with 4-multiplying circuits. ●Measuring range: 2000mm, 4000mm. ●Also available is a set type with indicator. 		61	
Wire draw-out-type linear encoder MLA series		MLA-17-□□□1-60	<ul style="list-style-type: none"> ●Wire draw-out-type linear absolute encoder. ●Smallest in the series: Outside dimensions 23 x 24 x 27.4 (H) ●Output 1,024 (G, N) or 1,000 (B) ●Main Applications: Robot Machine, small actuator, manipulator and etc. 		62	
		MLA-30-□□□□-90	<ul style="list-style-type: none"> ●Wire draw-out-type linear absolute encoder. ●Minimum reading 0.088mm, 0.09mm ●Output 1,024 (G, N) or 1,000 (B) 		63	
		MLA-42-□-□	<ul style="list-style-type: none"> ●Wire pulling linear absolute encoder Detection of absolute position does not need backup. ●Resolution/measuring range: 0.1/400 mm, 0.25/1000 mm, 0.5/2000 mm, 1/4000 mm 		64	
Roller encoder REH series		REH-30-□R□	<ul style="list-style-type: none"> ●Roller type linear encoder. ●Easy measuring. ●Minimum reading 0.1 to 1mm. 		65	
Measuring angle/ measuring length DC series		DC-□□□□□□	<ul style="list-style-type: none"> ●Small and robust counter. ●Decimal point moving, dividing/multiplying possible. 		66	